

FIG. 7

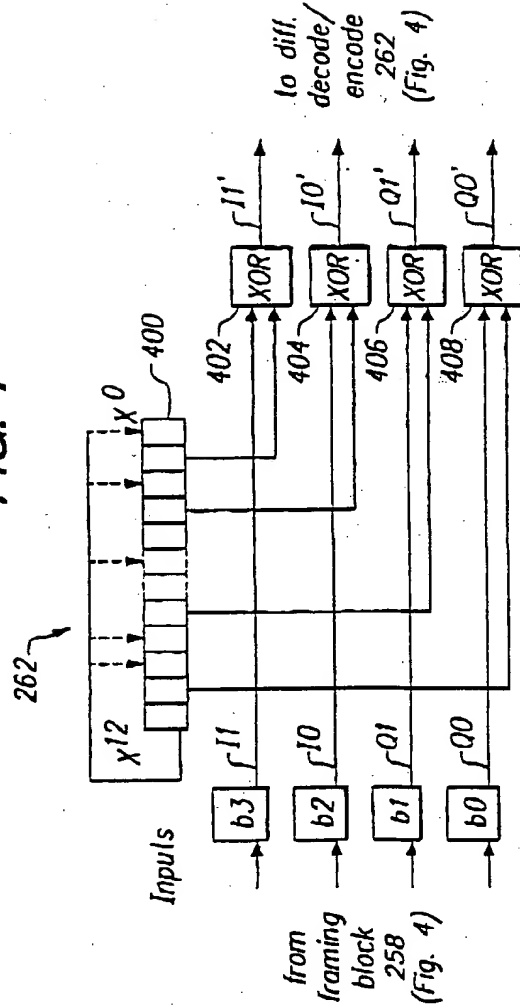


FIG. 8

$Quad = 2 \cdot I1' + Q1'$; - Map Quadrant Tag [0 1 2 3]
 $Phi = [0 \ 1 \ 3 \ 2]$; - to Angle = [0 1 2 3]
 $Angle = Phi(Quad)$
 $Sum = (Sum + Angle) \text{ modulo } 4$;
 $I1'' = \text{bit 1 of } Sum$; $I0'' = I0'$;
 $Q1'' = \text{bit 0 of } Sum$; $Q0'' = Q0'$;

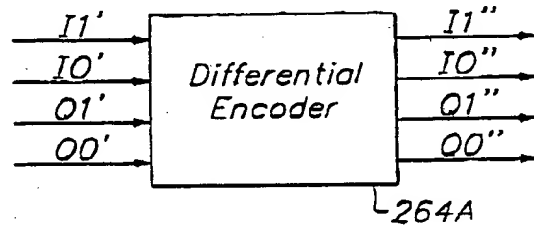


FIG. 9

$Angle = 2 \cdot RxIs' + RxQs'$;
 $Phi' = [0 \ 1 \ 3 \ 2]$;
 $Diff = (Phi'(Angle) - Phi_0) \text{ modulo } 4$;
 $Phi_0 = Phi'(Angle)$;
 $RxIs = \text{bit 1 of } Phi'(Diff)$; $RxIm = RxIm'$;
 $TxIs = \text{bit 0 of } Phi'(Diff)$; $RxQm = RxQm'$;

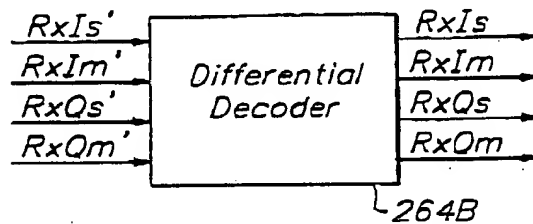


FIG. 10

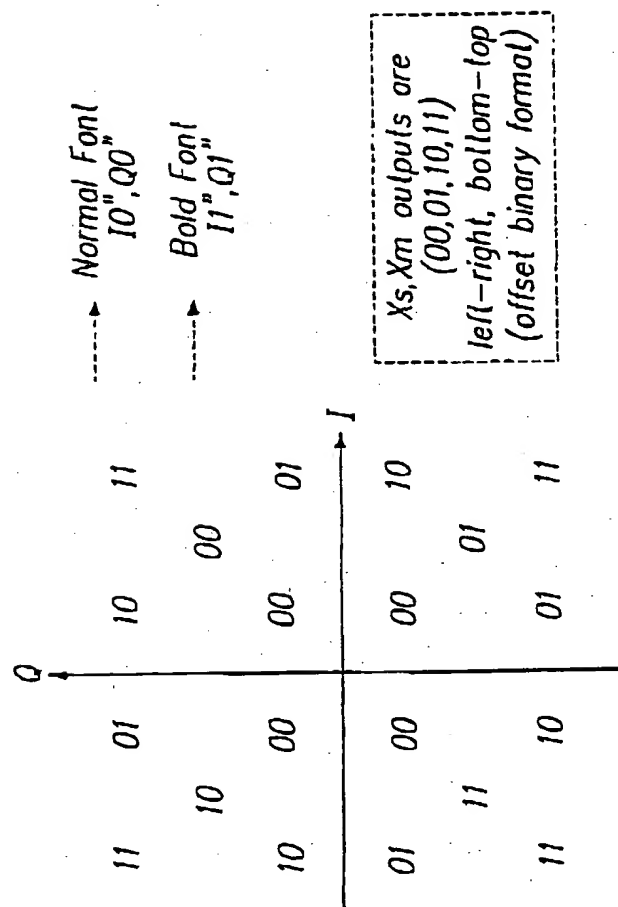


FIG. 11

Input Symbols
Shown in Output
Symbol Position

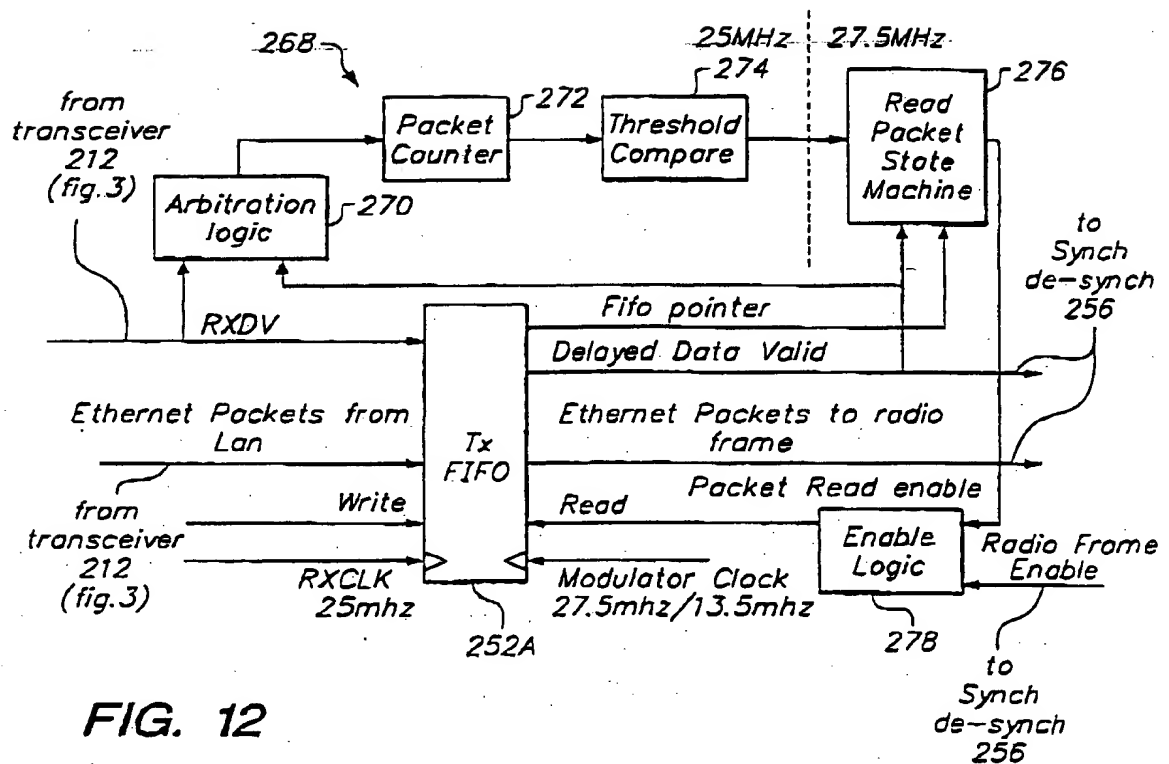


FIG. 12

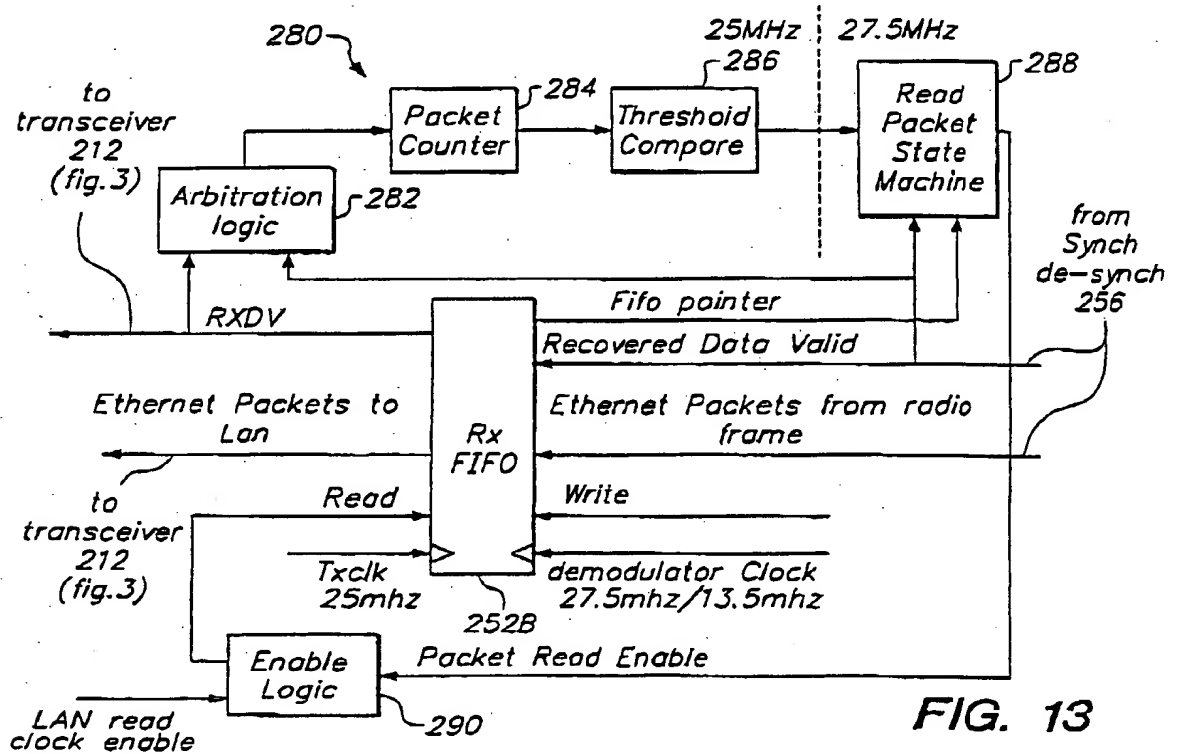


FIG. 13

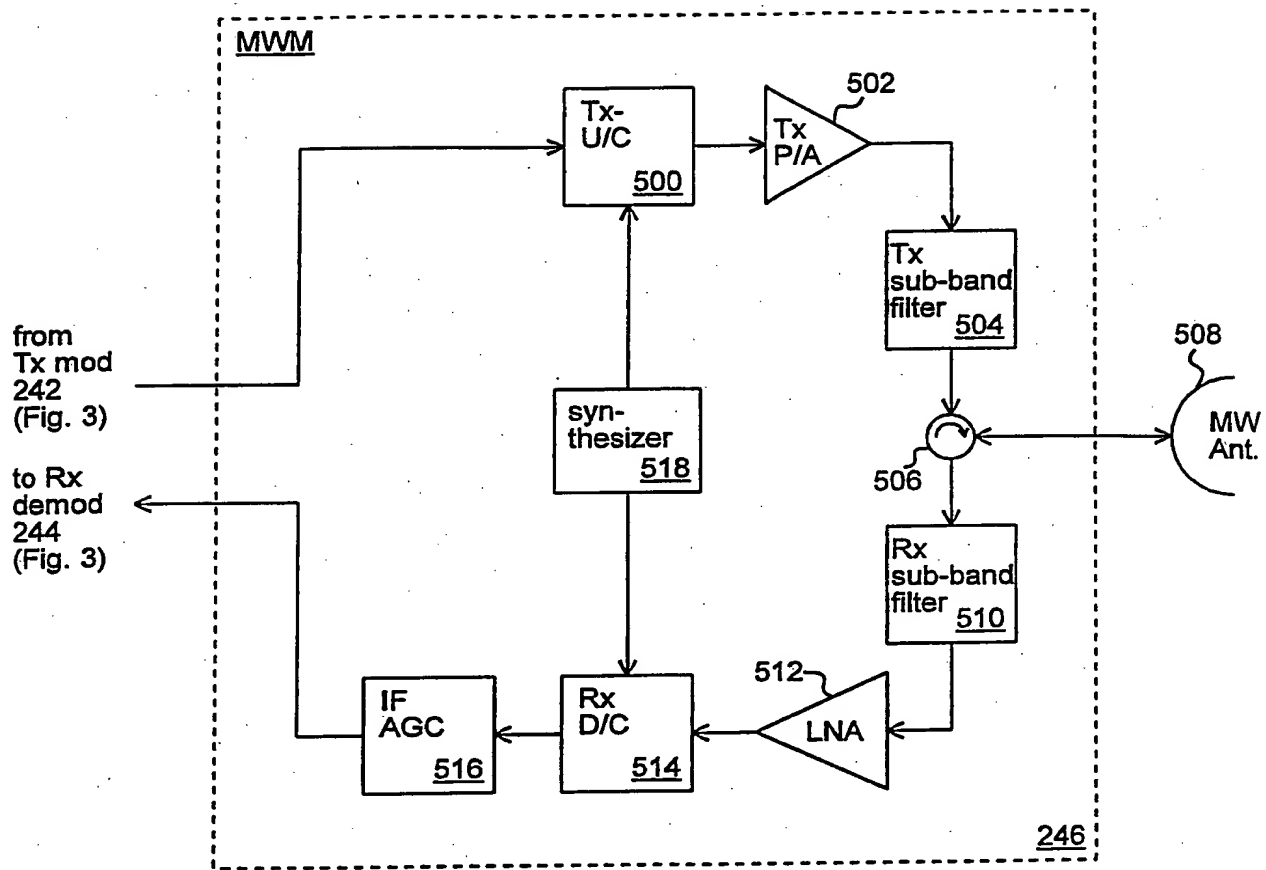


Fig. 14

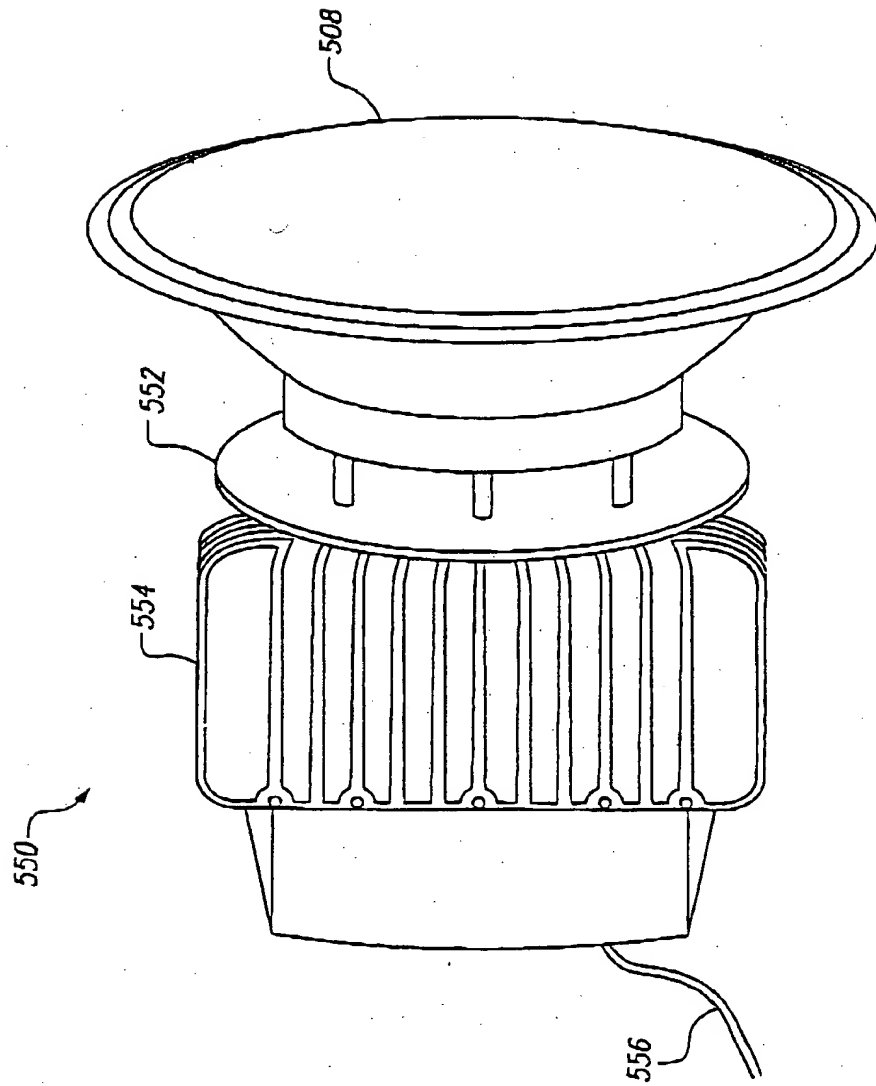
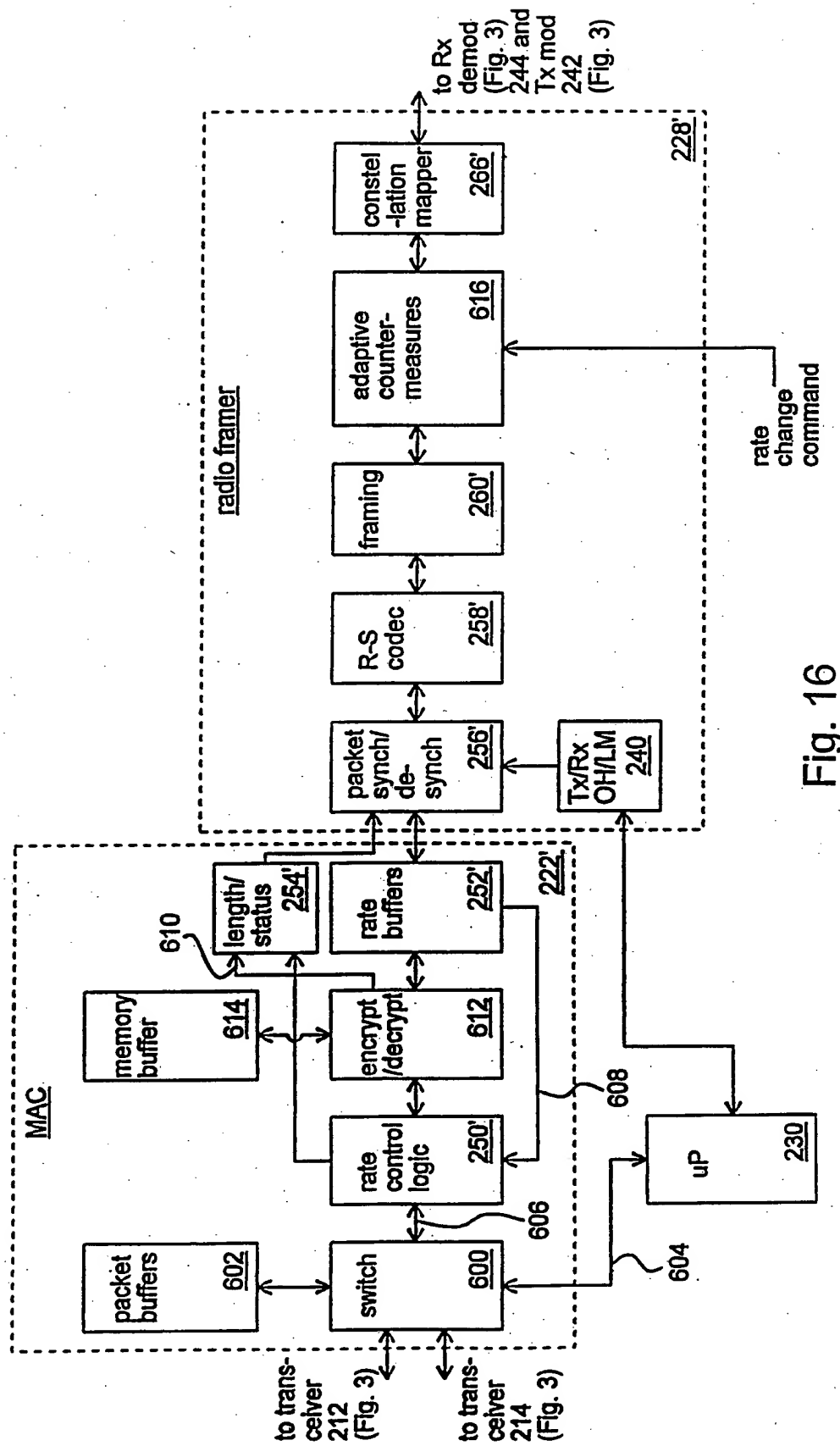


FIG. 15



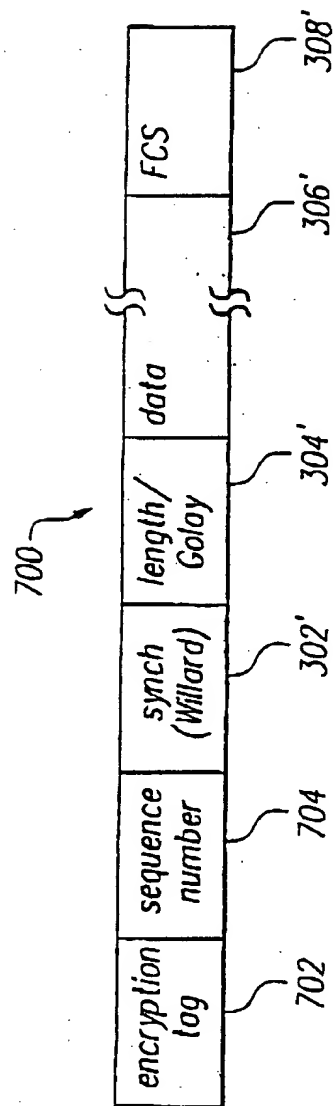
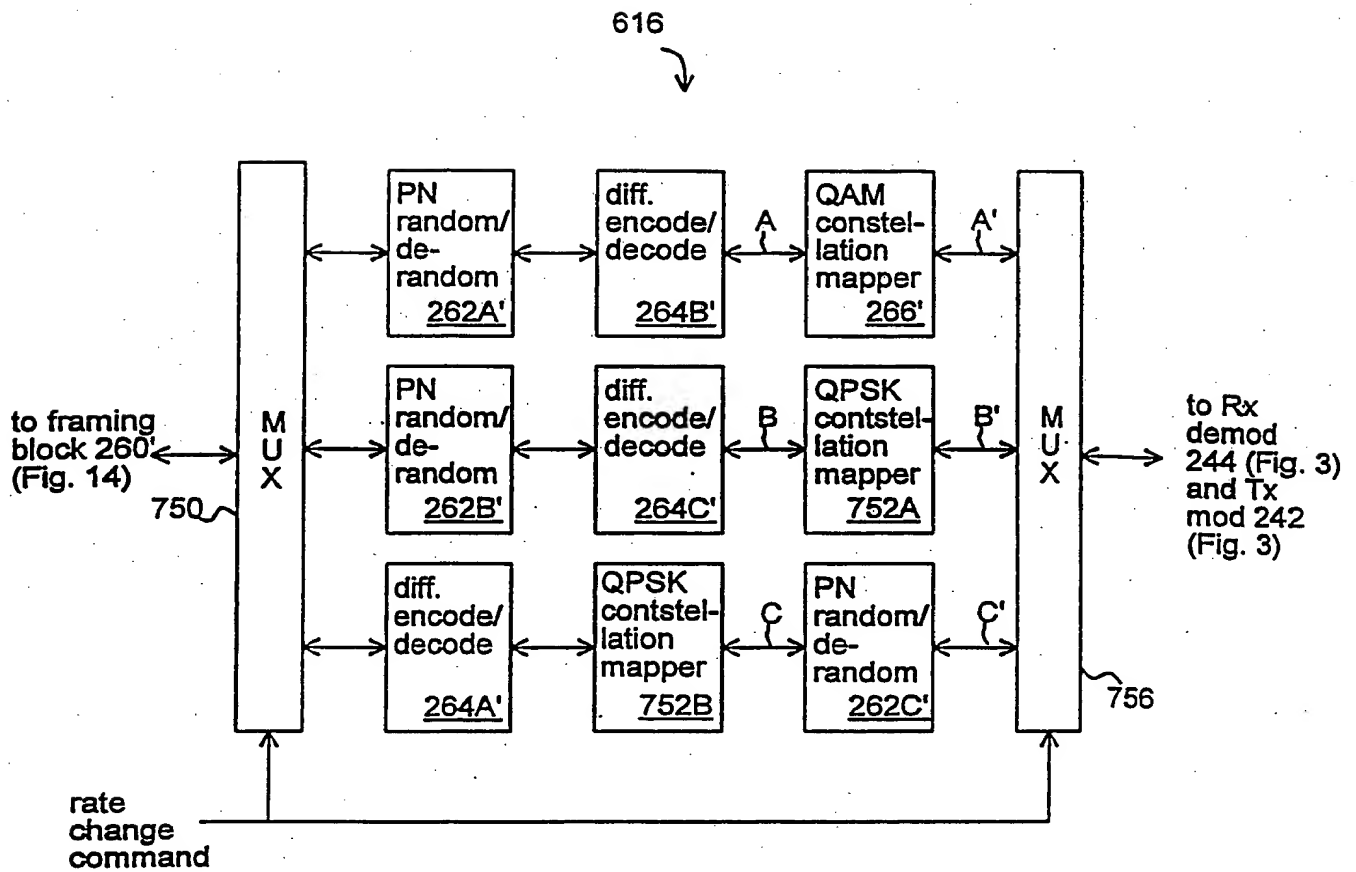


FIG. 17



A: data rate = 4 bits/symbol, symbol rate = 27.5 Msymbols (mega-symbols)/second

A': data rate = 4 bits/symbol, symbol rate = 27.5 Msymbols/second

B: data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

B': data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

C: data rate = 2 bits/symbol, symbol rate = 3.4375 Msymbols/second

C': data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

Fig. 18

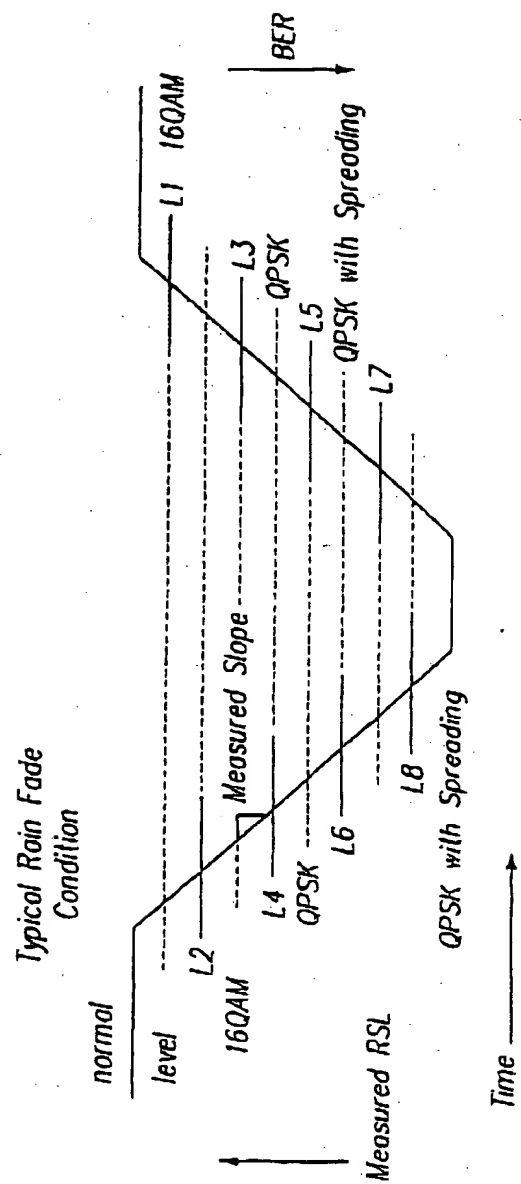


FIG. 19

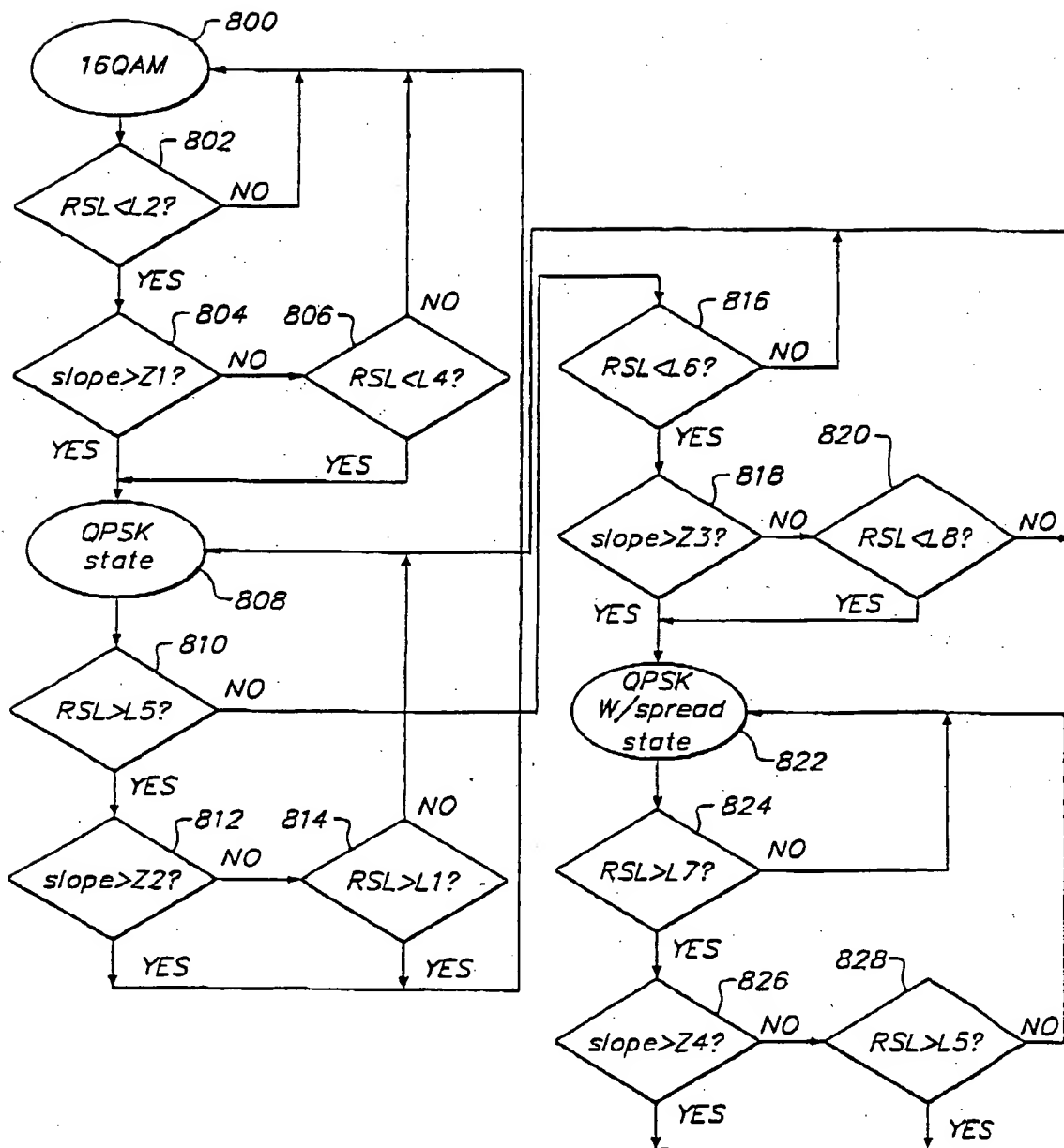


FIG. 20

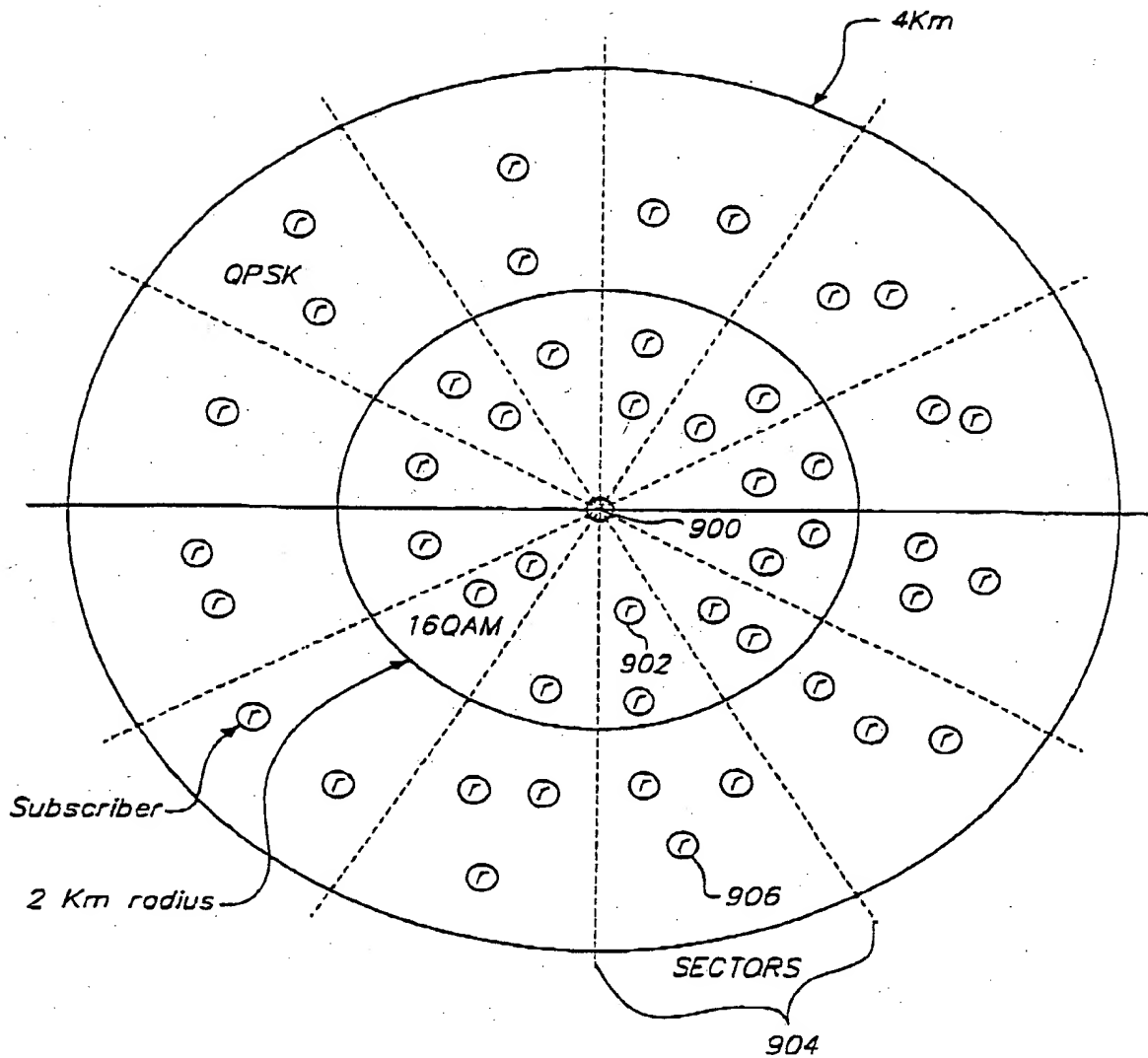


FIG. 21

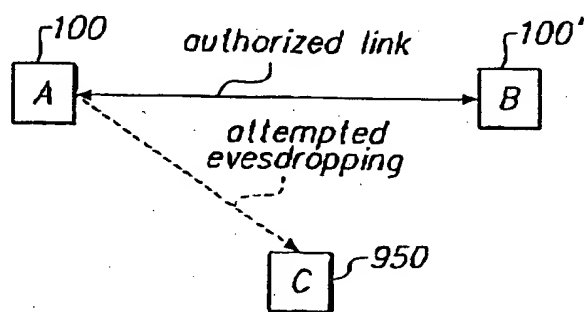


FIG. 22

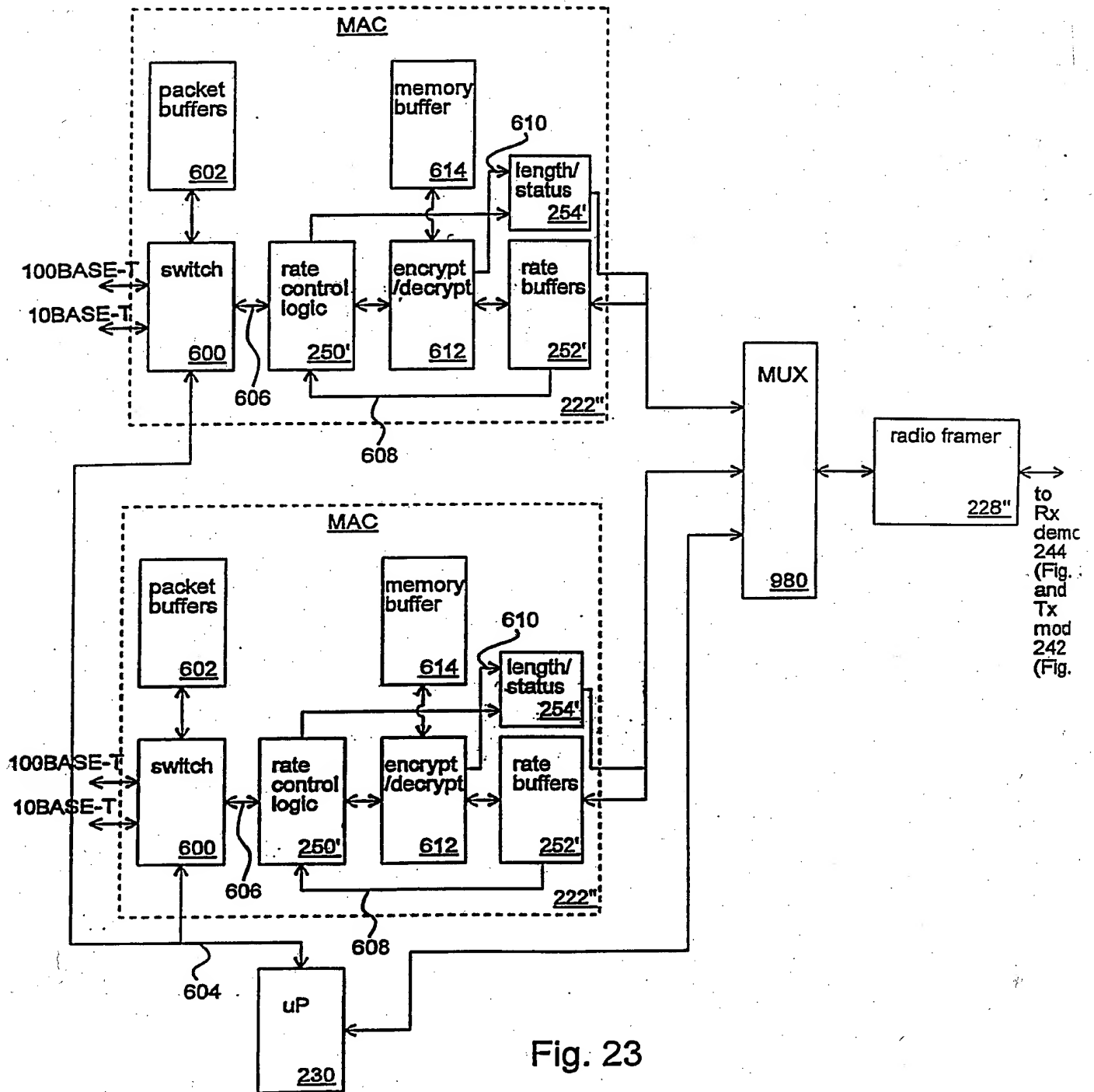


Fig. 23